

# United States Environmental Protection AgencyThe Federal Air Enforcement Perspective: A Discussion With the Association of Air PollutionControl Agencies

April 5, 2018

## Roadmap for Today

### Enforcement Direction

- Goals
- Policy
- Actions

### GOALS

EPA's Mission: To Protect Human Health and the Environment

Goal 1 -Core Mission: Deliver real results to provide Americans with clean air, land, and water.

Goal 2 -Cooperative Federalism: Rebalance the power between Washington and the states to create tangible environmental results for the American people.

Goal 3 -Rule of Law and Process: Administer the law, as Congress intended, to refocus the Agency on its statutory obligations under the law.

FY 2018-2022 Strategic Plan, Public Review Draft, 10/2/2017

### Policy

The U.S. Environmental Protection Agency's FY2018-2022 Strategic Plan establishes both cooperative federalism (Goal 2) and compliance with the law (Objective 3. 1) as fundamental priorities for the agency. In particular, Objective 2. 1 states that the EPA will: 'Improve environmental protection through shared governance and enhanced collaboration with State, tribal, local, and federal partners using the full range of compliance assurance tools.'" In using our compliance assurance tools. Objective 3.1 stresses the need to maintain a level playing field, stating that noncompliance with the law 'unfairly tilts the field of economic competition in favor of those that skirt the law' . . . .

Interim OECA Guidance on Enhancing Regional-State Planning andCommunication on Compliance Assurance Work in Authorized States,January 22, 2018

### Recent Actions

VopakNorth America Inc.

•

Lodged: May 17, 2017

•

Texas is a

Copplaintiff

•

### Alleged Violations: C

laims arise out of operation of terminal bulk storage tanks, flares, and a wastewater treatment system.

•

New Source Performance Standards (NSPS);

•

National Emission Standards for Hazardous Air Pollutants (NESHAP); and

•

State Implementation Plan (SIP) requirements.

•

Injunctive Relief:

•

Installation of state

-of-the-art air pollution controls at the facility's wastewater treatment system

•

Use of infrared cameras to detect excess VOCs from chemical storage tanks

•

Third party audit to improve waste management.

ExxonMobil

•

Lodged October 31, 2017

•

Louisiana is a

Copaintiff

•

Alleged Violations:

Claims arise out of operation/modification of industrial flares.

•

New Source Review/Prevention of Significant Deterioration (NSR/PSD);

•

NSPS and NESHAP;

•

Title V and the Title V permits; and

•

SIP requirements

•

Injunctive Relief: Covers 26 flares operated at four olefin plants and four polymer plants in Texas and Louisiana.

•

Waste gas minimization plans for reducing waste flaring.

•

Root cause analysis/corrective actions for significant flaring incidents

•

Flare gas recovery systems at the petrochemical/olefins facilities

•

Flare monitoring and control equipment to ensure high combustion efficiency at all 26 flares.

•

Fenceline

monitoring stations to detect the presence of benzene from four of the covered plants.

•

Federal SEP and

State Mitigation/SEP

EPA Press Release on Exxon Settlement

"This settlement means cleaner air for communities across Texas and Louisiana, and reinforces EPA's commitment to enforce the law and hold those who violate it accountable," said EPA Administrator Scott Pruitt. "As this agreement shows, EPA is dedicated to partnering with states to address critical environmental issues and improving compliance in the regulated community to prevent future violations of the law."

PDC Energy Inc.

•

Filed Complaint June 26, 2017

•

Colorado is a

Copplaintiff

•

Consent Decree Lodged October 31, 2017

•

Alleged Violations:

Claims arise out of Colorado SIP requirements relating to operation, maintenance, design, and sizing of vapor control systems at condensate storage tanks.

PDC Energy Inc.

•

Injunctive Relief:

•

Engineering evaluations to ensure vapor control systems are properly designed/sized to control VOC emissions.

•

PDC must make necessary modifications to ensure systems are properly designed/controlled following the engineering evaluations.

•

Infrared camera inspections to ensure the vapor control systems are controlling emissions as expected.

•

Third Party engineering evaluations verified by in

-house PDC engineer.

•

Inspection/preventative maintenance program.

•

Install pressure monitors with continuous data reporting on a cross  
-section of the tank systems.

•

Other measures to proactively detect and correct recurring issues.

•

Mitigation:

•

Installation of closed vapor system for loading condensate from certain PDC storage  
tanks  
into tanker trucks

•

Installation of emissions control on certain natural gas  
-fueled compressor engines

Carbon Black Settlements

•

Lodged:

December 22, 2017

•

Orion Engineered Carbons, LLC  
(Louisiana Coplaintiff);

•

Sid Richardson Carbon and Energy Company;  
(Louisiana and Texas Coplaintiffs);

•

Columbian Chemicals Company  
(Louisiana and Kansas Coplaintiffs).

•

Alleged Violations:

NSR/NNSR, NESHA and/or SIP violations

•

Control requirements include:

•

Installation and operation of selective catalytic reduction for NOx; and

•

Installation and operation of dry or wet flue gas desulfurization for SO<sub>2</sub>.

•

Mitigation:

Varies by settlement.

Range Resources New Owner Audit Agreement

•

August 9, 2017

•

Covers approximately 400 well sites in Louisiana previously owned by

Memorial Resources Development Corporation

•

Elements of the Agreement

•

Requires development of a Facility and Permit Inventory (within first 30 days of Audit)

•

Preparation of an air permitting summary report that includes permitting corrective actions

•

Facility Compliance Evaluation and Corrective Actions

•

Assessment of vapor control sizing and schedule for completing appropriate repairs/upgrades

•

Audit of NSPS and NESHAP compliance and schedule for corrective actions (Part 60 Subparts K/

Ka/Kb, KKK, LLL, IIII, JJJJ, KKKK, OOOO, OOOOa, and Part 63 Subparts H, HH, OO, SS, TT, UU, VV, HHH, ZZZZ, and BBBBBB)

•

Agreement requires Range to submit a proposed schedule for corrective actions that will take more than 60 days. Extensions up to 36 months may be granted.

•

New Owner Audit provides Range with penalty mitigation (adjusting the way penalties for economic benefit are calculated in the new owner context).

Enforcement Trends -Mobile Sources

Light Duty Heavy Duty (1980s)

Vehicles (1970s)

Marine SI (1998)Locomotive (2000)

Marine CILarge SIREcreational

(2004) (2004)Vehicles(2006)

NonroadSpark

Ignition (1997)

NonroadCompression Ignition (1996)

Large SI

(2004)

Mobile vs Stationary Emissions(Source: 2011 National Emissions Inventory Air Pollutant Emissions Data)

57%43%CO62%38%NOx2%98%SO228%72%VOCMobileStationary

Fiat-Chrysler

•

Complaint Filed:

May 17,2017

•

Alleged Violations:

Installation of undisclosed/unjustified vehicle operation software that "defeats" required emission controls in 104,000 vehicles.

Diesel Exhaust Aftertreatment Emission Controls

•

Oxidation Catalyst

•

Commonly a diesel oxidation catalyst (DOC) that controls unburnt hydrocarbons (HC)

•

Generally in 2003 and newer diesels

•

DPF

•

Controls particulate matter (PM)

•

Generally found in 2007 and newer diesels

•

SCR

•

Primarily controls NO

xusing the injection of diesel exhaust fluid (DEF) prior to catalytic reduction

•

Generally found in 2010 and newer diesels

18

What is an Aftermarket Defeat Device?

•

Aftermarket Defeat Device

-"any part or component...where a principal effect...is to bypass, defeat, or render

inoperative any device or element of design installed on or in a motor vehicle or motor vehicle..."

- 

Types of Defeat Devices

- 

EGR Hardware Deletes

- 

Exhaust Aftertreatment Delete Hardware (straight pipes)

- 

Tuning

-Calibration and OBD modifications

19

Aftermarket Tuning

- 

Tuning = Modifying calibration file(s)

- 

Typically installed using a "tuner"

through the vehicle's data link connector (DLC)

- 

Tuning is required to make engine

operate with EGR and exhaust aftertreatment deletes AND to prevent OBD from activating the check engine light and/or limp mode

20

EPA Tuner Emissions Tests Stock Calibration/Equipment Versus Emissions-Equip. Removed Tuners

0

1

2

3

4

5

6

7

8

9

10

NOx

CO

0.0303

0.026

10.5344

3.318

8.3975

3.006

1.3222

4.895

Grams Per Mile (g/mi)

0

0.05

0.1

0.15

0.2

0.25

PM

0.0017

0.0649

0.0685

0.2103

Grams Per Mile (g/mi)

Second and Third test: EGR electronically disabled by tuner. DOC, DPF, and SCR replaced with straight pipe and disabled by tuner in calibration.

Fourth Test: EGR not disabled electronically by tuner. DOC, DPF, and SCR replaced with straight pipe and disabled by tuner in calibration.

21

Nonattainment and Maintenance Areas in the U. S.

8 -hour Ozone Standard

Nonattainment Areas (354 entire counties)

Nonattainment Areas (37 partial counties)

Maintenance Areas (83 entire or partial counties: ',

Partial counties, those with part of the county designated

nonattainment and part attainment. are shown as full counties on the map.